



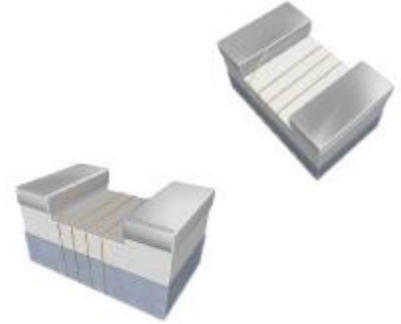
# WIRE WOUND CHIP INDUCTORS

## FEATURES

- I High Self-Resonance Frequency
- I Stable inductance at high frequency
- I Tight inductance tolerance
- I High Q factor
- I High current
- I Low DCR

## MODEL

CCFH 0603 C



## APPLICATIONS

- I Antenna amplifiers
- I Mobile phone
- I Key entry
- I GPS (Global Positioning System)
- I Wireless LAN
- I PDA (Personal Digital Assistant)

## How to Specify Chip Inductor

|          |          |          |          |          |          |          |          |          |          |          |          |          |
|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| <b>C</b> | <b>C</b> | <b>S</b> | <b>P</b> | <b>0</b> | <b>6</b> | <b>0</b> | <b>3</b> | <b>C</b> | <b>2</b> | <b>N</b> | <b>7</b> | <b>J</b> |
| □        | □        | □        | □        | □        | □        | □        | □        | □        | □        | □        | □        | □        |
| ①        | ②        | ③        | ④        | ⑤        |          |          | ⑥        | ⑦        |          | ⑧        |          |          |

- ① Bobbin type      C U shape  
                          H H shape
- ② Bobbin material C Ceramic Bobbin  
                          F Ferrite Bobbin
- ③ Electrode sort    S Tin-Lead  
                          F Pb Free
- ④ Wire sort         P General Wire  
                          S Soft Wire  
                          D UEW-D  
                          H HSEW  
                          T Special Wire
- ⑤ Bobin size        0402,0603,0805
- ⑥ CEC'S CODE (Controlled by CEC)
- ⑦ Inductance        e.g. 2N7  $\approx$  2.7nH  
                          R39  $\approx$  390nH
- ⑧ Inductance tolerance F      G      J      K      M      X      Y  
                                   $\pm 1\%$     $\pm 2\%$     $\pm 5\%$     $\pm 10\%$     $\pm 20\%$     $\pm 1.5\%$     $\pm 4.5\%$
- \* Special instance      CCSP 0805 F is Ferrite Bobbin.

※ Specifications other than the above will be furnished upon request.



# WIRE WOUND CHIP INDUCTORS

**Construction & Dimensions: mm**



**CCFH 0603 C SERIES ELECTRICAL CHARACTERISTIC <Pb-Free> (H5000202)**

| CEC P/N           | Inductance |                   | Q min. | Test Freq. (MHz) | S.R.F. (MHz) min. | DCR (Ω) max. | IDC (mA) max. |
|-------------------|------------|-------------------|--------|------------------|-------------------|--------------|---------------|
|                   | L(nH)      | Tolerance         |        |                  |                   |              |               |
| CCFH 0603 C 1N6 □ | 1.6        | Y, J, K           | 24     | 250              | 12500             | 0.030        | 700           |
| CCFH 0603 C 1N8 □ | 1.8        | Y, J, K           | 16     | 250              | 12500             | 0.045        | 700           |
| CCFH 0603 C 3N3 □ | 3.3        | Y, J, K           | 25     | 250              | 10000             | 0.050        | 700           |
| CCFH 0603 C 3N6 □ | 3.6        | Y, J, K           | 22     | 250              | 5900              | 0.063        | 700           |
| CCFH 0603 C 3N9 □ | 3.9        | Y, J, K           | 22     | 250              | 6900              | 0.080        | 700           |
| CCFH 0603 C 4N3 □ | 4.3        | Y, J, K           | 22     | 250              | 5900              | 0.063        | 700           |
| CCFH 0603 C 4N7 □ | 4.7        | Y, J, K           | 20     | 250              | 5800              | 0.130        | 700           |
| CCFH 0603 C 5N1 □ | 5.1        | Y, J, K           | 20     | 250              | 5700              | 0.140        | 700           |
| CCFH 0603 C 6N8 □ | 6.8        | G,Y,J,K           | 27     | 250              | 5800              | 0.110        | 700           |
| CCFH 0603 C 7N5 □ | 7.5        | G,Y,J,K           | 28     | 250              | 4800              | 0.106        | 700           |
| CCFH 0603 C 8N7 □ | 8.7        | G,Y,J,K           | 28     | 250              | 4600              | 0.109        | 700           |
| CCFH 0603 C 9N5 □ | 9.5        | G,Y,J,K           | 28     | 250              | 5400              | 0.135        | 700           |
| CCFH 0603 C 10N □ | 10         | G,Y,J,K           | 31     | 250              | 4800              | 0.130        | 700           |
| CCFH 0603 C 11N □ | 11         | G,Y,J,K           | 33     | 250              | 4000              | 0.107        | 700           |
| CCFH 0603 C 12N □ | 12         | G,Y,J,K           | 35     | 250              | 4000              | 0.130        | 700           |
| CCFH 0603 C 15N □ | 15         | G,Y,J,K           | 35     | 250              | 4000              | 0.170        | 700           |
| CCFH 0603 C 16N □ | 16         | G,Y,J,K           | 34     | 250              | 3300              | 0.134        | 700           |
| CCFH 0603 C 18N □ | 18         | G,Y,J,K           | 35     | 250              | 3100              | 0.170        | 700           |
| CCFH 0603 C 22N □ | 22         | G,Y,J,K           | 38     | 250              | 3000              | 0.190        | 700           |
| CCFH 0603 C 24N □ | 24         | G,Y,J,K           | 37     | 250              | 2650              | 0.190        | 700           |
| CCFH 0603 C 27N □ | 27         | G,Y,J,K           | 40     | 250              | 2800              | 0.220        | 600           |
| CCFH 0603 C 30N □ | 30         | G,Y,J,K           | 37     | 250              | 2250              | 0.187        | 600           |
| CCFH 0603 C 33N □ | 33         | G,Y,J,K           | 38     | 250              | 2300              | 0.260        | 600           |
| CCFH 0603 C 36N □ | 36         | G,Y,J,K           | 38     | 250              | 2080              | 0.250        | 600           |
| CCFH 0603 C 39N □ | 39         | G,Y,J,K           | 40     | 250              | 2200              | 0.250        | 600           |
| CCFH 0603 C 43N □ | 43         | G,Y,J,K           | 39     | 250              | 2000              | 0.280        | 600           |
| CCFH 0603 C 47N □ | 47         | G,Y,J,K           | 38     | 200              | 2000              | 0.280        | 600           |
| CCFH 0603 C 56N □ | 56         | G,Y,J,K           | 38     | 200              | 1900              | 0.340        | 600           |
| CCFH 0603 C 68N □ | 68         | G,Y,J,K           | 37     | 200              | 1700              | 0.340        | 600           |
| CCFH 0603 C 72N □ | 72         | G,Y,J,K           | 34     | 150              | 1700              | 0.490        | 400           |
| CCFH 0603 C 82N □ | 82         | G,Y,J,K           | 34     | 150              | 1700              | 0.540        | 400           |
| CCFH 0603 C R10 □ | 100        | G,Y,J,K           | 34     | 150              | 1400              | 0.580        | 400           |
| CCFH 0603 C R11 □ | 110        | G,Y,J,K           | 32     | 150              | 1350              | 0.610        | 300           |
| CCFH 0603 C R12 □ | 120        | G,Y,J,K           | 32     | 150              | 1300              | 0.720        | 300           |
| CCFH 0603 C R15 □ | 150        | G,Y,J,K           | 28     | 150              | 990               | 0.920        | 280           |
| CCFH 0603 C R18 □ | 180        | G,Y,J,K           | 25     | 100              | 990               | 1.250        | 240           |
| CCFH 0603 C R22 □ | 220        | G,Y,J,K           | 25     | 100              | 900               | 2.100        | 200           |
| CCFH 0603 C R27 □ | 270        | G,Y,J,K           | 24     | 100              | 900               | 2.300        | 170           |
| CCFH 0603 C R33 □ | 330        | G,Y,J,K H,G,Y,J,K | 25     | 100              | 900               | 3.630        | 170           |
| CCFH 0603 C R39 □ | 390        | X,G,Y,J,K         | 25     | 100              | 700               | 3.700        | 130           |

\* Testing instrument and conditions

DCR : HP 34420A or equivalent

Inductance & Q : HP 4287A & HP16193A or equivalent

S.R.F. : HP 8720ES or equivalent

IDC : Based on a 20°C maximum temperature rise.

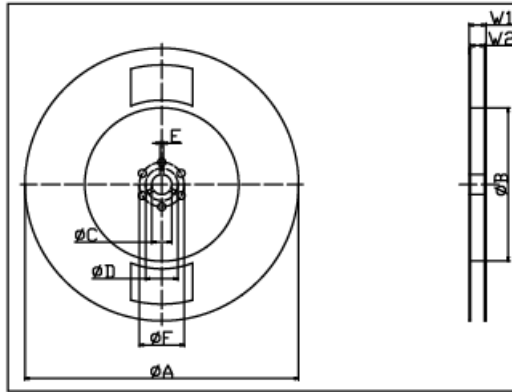
※ Inductance tolerance □: G = ±2 %, J = ±5 %, K = ±10 %

※ Specifications other than the above will be furnished upon request.



# WIRE WOUND CHIP INDUCTORS

## REEL DIMENSIONS (mm)



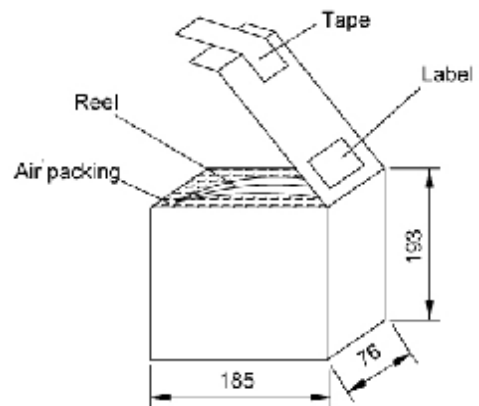
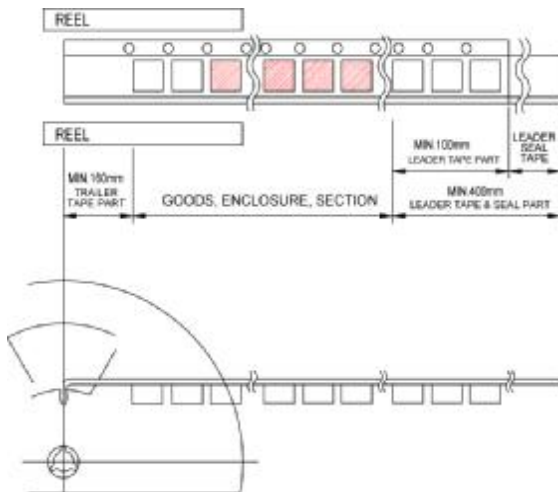
| Model | A   | B                  | C                 | D                 | E                    | W <sub>1</sub>    | W <sub>2</sub>      |
|-------|---|--------------------|-------------------|-------------------|----------------------|-------------------|---------------------|
| 0805  | $\phi 180 \begin{matrix} +0 \\ -3 \end{matrix}$ | $\phi 60 \pm 2$    | $\phi 13 \pm 0.5$ | $\phi 21 \pm 0.8$ | $2.0 \pm 0.5$        | $9 \pm 0.5$       | $11.5 \pm 0.8$      |
| 0603  |   |                    |                   |                   |                      |                   |                     |
| 0402  | $\phi 178 \pm 0.5$                              | $\phi 100 \pm 0.5$ | $\phi 13 \pm 0.2$ | $\phi 21 \pm 0.5$ | $\phi 2.20 \pm 0.25$ | $\phi 29 \pm 0.5$ | $\phi 11.4 \pm 1.0$ |

## TAPING DIMENSIONS (mm)



| Model | A               | B               | K <sub>0</sub>  | T               | W                | P <sub>0</sub> ±0.1 | P <sub>1</sub> | P <sub>2</sub> | D                   | E±0.1 | F±0.05 |
|-------|-----------------|-----------------|-----------------|-----------------|------------------|---------------------|----------------|----------------|---------------------|-------|--------|
| 0805  | $2.0 \pm 0.2$   | $2.6 \pm 0.1$   | 2.0 max.        | 0.3 max.        | $8.0 \pm 0.3$    | 4.0                 | $4.0 \pm 0.1$  | $2.0 \pm 0.5$  | $\phi 1.5 \pm 0.1$  | 1.75  | 3.5    |
| 0603  | $1.2 \pm 0.2$   | $2.0 \pm 0.1$   | 1.2max.         | 0.242 max.      | $8.0 \pm 0.3$    | 4.0                 | $4.0 \pm 0.1$  | $2.0 \pm 0.5$  | $\phi 1.5 \pm 0.1$  | 1.75  | 3.5    |
| 0402  | $0.70 \pm 0.03$ | $1.20 \pm 0.03$ | $0.60 \pm 0.03$ | $0.68 \pm 0.02$ | $8.0 + 0.3/-0.1$ | 4.0                 | $2.0 \pm 0.05$ | $2.0 \pm 0.05$ | $\phi 1.5 + 0.1/-0$ | 1.75  | 3.5    |

## PACKING DIMENSIONS (mm)



QUANTITY : 3,000 pcs